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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,467	02/09/2000	Shulong Li	2129	3887

25280 7590 09/24/2002

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EXAMINER

SINGH, ARTI R

ART UNIT	PAPER NUMBER
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1771

6

DATE MAILED: 09/24/2002

OA due 12/24/02

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-6

Office Action Summary	Application No.		Applicant(s)	
	09/501,467		LI ET AL.	
	Examiner		Art Unit	
	Ms. Arti R. Singh		1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on initial filing on 02/09/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 05/12/00 as paper no. 4, fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It appears that two copies of only the first page, i.e. the letter stating the provisions under 37 CFR § 1.97 were transmitted. There is no list of references. Please remit and they will be considered in the next office action.

Specification

2. The disclosure is objected to because of the following informalities:

3. At the beginning of the Specification (page 1) under the heading "Cross Reference To Related Applications", the continuity data needs to be updated as Application 09/350,620 has matured into U.S.P.N. 6,117,366. Furthermore, although priority is claimed towards 09/335,257, now U.S.P.N. 6,177,365 there is no mention of this application in this section showing any means of continuity. Appropriate correction is required.

4. The uses of Trademarks/Tradenames have been noted throughout this application (p. 14, ln 2, (Sancure) &p. 15, ln 4 (Amsperse) just to name a few. They should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of Trademarks/Tradenames is permissible in patent applications, the proprietary nature of the marks/names should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as a trademark or tradename. To describe physical or other properties of material by mere use of trademark is objectionable since it has tendency to make trademark descriptive of product rather than leaving trademark to serve its traditional purpose, which is to identify product's source of origin.

5. On page 21, line 20 the application to Sollars Jr. et al., 09/406,264 has matured into

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U.S.P.N. 6,220,309. Please update this information.

Claim Objections

6. Claim 15 is objected to because of the following informalities: there is no unit, i.e. psi, after the phrase "tensile strength of at least 1500". Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 15 and 30-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Independent claim 15 recites physical properties of an elastomerically coated fabric possessing a tensile strength of at least 1500 psi and an elongation of at least 180%. Independent claim 30 recites a packing volume factor and a leak down time, and its dependent claim 31 recites a packing volume factor of 21.6. Claims merely setting forth physical characteristics desired in an article and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart the desired characteristics. Note *Ex Parte Slob*, 157 USPQ 172. Thus, claims 15 and 30-31 are deemed to be indefinite for reciting only the desired physical properties of the coated fabric, rather than setting forth any structural and/or chemical characteristic of airbag cushion comprising a coated fabric.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1-8, 10-21, 24-33 and 35-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. (USPN 5,945,186). Li et al. disclose a coated base fabric for use in an airbag. The coated base fabric includes a substrate, which is overcoated with a cross-linked elastomeric resin. Such resin may be selected from the group consisting essentially of polyamide, butyl rubber, EPDM, polyurethane, hydrogenated rubber, NBR, acrylic rubbers and mixtures thereof (column 2, lines 39-42). The coating weight is usually between 0.1 to 0.5 ounces per square yard (column 2, lines 33-35 and abstract). Furthermore, the resin may be present as either a latex or in solution with an organic solvent or solvents (abstract). The substrate across which the cross-linked elastomeric resin coating is applied to form the airbag bag base fabric in accordance with the present invention is preferably a plain woven fabric formed from yarns comprising a polyamide (nylon 6, 6- column 4, line 65), or polyester fibers.

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Such yarns preferably have a linear density of about 210-630 denier. Such yarns are preferably formed of multiple filaments wherein the filaments have their own linear densities of 6 denier or less (column 3, lines 53-64).

Given that Li et al. meet each and every chemical and structural requirement set forth in the claims, then it must meet the property limitations of leak down time, tensile strength, elongation, packing volume factor and sliding coefficient of friction recited that depend from said requirements. In other words, it is reasonable to presume that the invention of Li et al. would inherently anticipate the physical properties of the present invention, since both inventions are comprised of coated fabrics coated by the same method, with an elastomeric composition (polyurethane) in an amount at most 2.5 ounces per square yard, said fabric being a woven polyamide, preferably a nylon 6,6 wherein the yarns have a linear density of 210-630 denier.

Furthermore, as no other structural or chemical features are claimed which may distinguish the present invention from that of the Li et al. invention, the presently claimed physical properties of leak down time, tensile strength, elongation, packing volume factor and sliding coefficient of friction are deemed to be inherent to the invention of Li et al. The burden is upon Applicant to prove otherwise. Note *In re Fitzgerald* 205 USPQ 495. Without a showing that evidences a difference between the prior art and the present invention, anticipation is proper. However, such evidence could support the proposition that the current claims are incomplete.

11. Claims 1-6, 8-19, 22-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Menzel et al. (USPN 5,110,666). Menzel et al. disclose an airbag for use in motor vehicles made of a synthetic fabric coated with a thin layer of polyurethane coating (column 1, lines 12-15). The fabric substrate may be polyamide, preferably nylon or polyester woven or

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nonwoven (column 3, lines 19-65). Any denier, shape, weave configuration may be used in formulating the fabric depending upon the desired end result of the airbag (column 3, lines 19-27). In the working example shown in column 5, the airbag construction employs a 420 denier, nylon 6,6 base fabric. The fabric substrate may be selectively coated in the forms of stripes, dots, wavy lines, or other patterns to obtain the desired air permeabilities of the coated fabric (column 3, lines 19-27). For the lowest permeability, the coating is applied to substantially cover the entire fabric. A coating weight of between 0.1 and 1 ounces per square yard and preferably 0.25 to 0.75 ounces per square yard is desired, which falls within Applicant's claimed range of at most 2.5 ounces per square yard. This coating enables the coated fabric to be lightweight, foldable and cuttable without fraying the fibers of the fabric (column 3, lines 28-34). The type and amount of coating to be applied will vary depending upon the end results desired (column 4, lines 1-7). In the same section of the patent, Menzel et al. alludes to the fact that if heavier coating weights are required, a three head coater may be employed. The coating applied may be a polycarbonate polyurethane, which may contain additives (column 4, lines 8-60).

Given that Menzel et al. meet each and every chemical and structural requirement set forth in the claims, then it must meet the property limitations of leak down time, tensile strength, elongation, packing volume factor and sliding coefficient of friction recited that depend from said requirements. In other words, it is reasonable to presume that the invention of Menzel et al. would inherently anticipate the physical properties of the present invention, since both inventions are comprised of coated fabrics coated with an elastomeric composition in an amount at most 2.5 ounces per square yard, said fabric being a woven polyamide, preferably a nylon 6,6 wherein the yarns have a linear density of 210-630 denier.

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Furthermore, as no other structural or chemical features are claimed which may distinguish the present invention from that of the Menzel et al. invention, the presently claimed physical properties of leak down time, tensile strength, elongation, packing volume factor and sliding coefficient of friction are deemed to be inherent to the invention of Menzel et al. The burden is upon Applicant to prove otherwise. Note *In re Fitzgerald* 205 USPQ 495. Without a showing that evidences a difference between the prior art and the present invention, anticipation is proper. However, such evidence could support the proposition that the current claims are incomplete.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F. 3d 1046, 29 USPQ 2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F. 2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F. 2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F. 2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F. 2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (c) may be used to overcome an actual or provisional rejection based in a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73 (b).

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13. Claims 1, 3-8, 10-21 and 24-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 8 and 11 of U.S. Patent No. 5,945,186. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only difference seen between the patent and the present Application is the variation in the range of the coating which is being applied. Both the patent, 5,945,186, and the present Application, 09/501,467, are concerned with coating a polyamide fabric for use in an airbag. They both require that the fabric be woven from polyamide yarns, preferably nylon 6,6, said yarns have a total linear density of 210-630 denier, a single filament which makes up the yarn to have a linear density of 4 denier or less and that the fabric is coated with an elastomeric coating. The coating in both the patent and the present Application require that the elastomeric coating be a polyurethane, and present in the form of a solvent borne solution. Thus, the difference between the patent and the present Application is that the patented claims only require the coating weight to be present in the range of 0.1 to 0.5 ounces per square yard and the present Application requires the same coating to be in an amount of at most 2.5 ounces per square yard. Therefore, the present Application encompasses the range 0.1 to 0.5 ounces per square yard as that taught by US Patent 5,945,186.

Furthermore, a skilled artisan would have found it obvious to have employed the increased coating weight in an airbag, motivated by the desire to attain an airbag which had greater impermeability, such as a side curtain airbag which necessitates that the air remain within the airbag for a longer period of time.

14. Claims 1-7, 10-20, 24-29, 32, 33, 36 and 37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 09/557,643. Although the conflicting claims are not

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identical, they are not patentably distinct from each other because the claims of the present Application are drawn to an airbag cushion comprising a coated fabric, whereas Application 09/557,643 is drawn to an airbag cushion comprising a fabric laminated with a film. Both Applications require the same structure and chemistry for the airbag fabric and its coating. However, the present Application-09/501,467 refers to the coating as an elastomeric composition, whereas Application 09/557,643 refers to the same coating as a film. The phrase "coated laminate film" implies that the film was obtained via a coating process and thus, is actually a method step and would have no effect on the end result of the final airbag cushion that is produced.

Further, the present Application claims a coating weight of "at most 2.5 ounces per square yard whereas, Application 09/557,643 claims a coating in the form of a film in an amount of at most 2.7 ounces per square yard. Therefore, the claimed coating weight of 2.5 ounces per square yard as set forth by Application 09/501,467 falls within the claimed coating range of 2.7 ounces per square yard of Application 09/557,643, and thus no patentable distinction is seen.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti R. Singh whose telephone number is 703-305-0291. The examiner can normally be reached on M-F 7:00am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-873-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to be 'AR Singh', with a long horizontal stroke extending to the right.

Ms. Arti R. Singh

Patent Examiner

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ars

September 23, 2002